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THE MEDICAL EXAMINER.

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MEDICAL REFORM.

To the Editors of the Medical Examiner.

GENTLEMEN,

I notice with pleasure the discussion upon which you have entered of the important subject of Medical Reform. The mere agitation of the question must, I think, be attended with good results; and, I am quite sure that the views which you have thrown out are shared by the mass of the profession. But, gentlemen, while you are proposing to raise the standard of qualification for the privilege to practice medicine, is it not notorious that, easily as that privilege is now obtained, it may be, and is, dispensed with in the successful attempt to reach the profits, and even the honours of the profession? In your own city, are not some of the most successful and eminent practitioners, (eminent in the estimation even of the educated and intelligent,) to be found in the ranks of those who laugh degrees to scorn, and will continue to pursue their career of lucky charlatanism, careless of the difficulties which you may choose to interpose in the acquirement of a diploma, the want of which they do not feel. Will you not then, gentlemen, while proceeding with the topic of Medical Reform, say a few words upon another which bears closely upon the former—the suppression of quackery—and oblige, among others, your constant reader,

MEDICO-CHIRURGUS.

Richmond, (Va.) July 21st, 1841.

The subject of quackery is of course, as our correspondent suggests, involved in the question of Medical Reform. It is naturally asked, why attempt to improve our system of medical education, so long as we are refused protection from the competition of the entirely uneducated? Our correspondent says, why raise the standard of qualification for licences to practice, when we see them altogether dispensed with? Indeed, the spectacle of successful quackery around us has shaken the faith of many in the whole system of universities and diplomas, and some even would throw the business of the physician entirely open, leaving it to be regulated by the ordinary laws of supply and demand. These are points upon which we in-

tended entering during the present discussion, and we take the occasion of the communication before us to express our views now. We think that the public safety requires from the practitioner of medicine a guarantee that he is master of his profession. In other avocations, the public can appreciate the skill and talents of those they employ, while they can, to a certain extent only, judge of these qualities in a physician. We think then, that the public has a right to be presented with a certified list of educated persons, to whom, in emergencies, they may safely entrust their lives. So far, and so far only, would we carry the system of examinations and licences. We would divest it of every feature of monopoly. After taking care that the public should *know the best*, we would leave them free to *pursue the worst*. By improving the system of regular education, physicians will offer the best opposition to the progress of quackery. The real value of degrees in medicine will be accurately appreciated by the public; nor can it be doubted that the ease with which they are now obtained serves to depreciate them in popular estimation. From this very increasing quackery, we deduce an argument in favour of Medical Reform. Let us demand a higher scale of qualification from those who ask for the privilege of a degree, and the degree itself will have a higher value in the public eye. The more strongly marked is the line that separates the regular practitioner from the quack, the lower must the latter sink.

DOMESTIC.

We copied from the last number of the Western Journal of Medicine and Surgery, a case of Axillary Aneurism, which had been operated upon by Professor Gross—with the post mortem examination, death having occurred thirty days after the ligature of the subclavian artery. The paper of Prof. Gross, of which this operation constitutes the basis, exhibits concisely the peculiarities of 26 cases of Axillary Aneurism, for which the subclavian has

been tied by other surgeons. This summary is so valuable as a statistical record, that we extract the most important parts.

Cases of Axillary Aneurism for which the Subclavian Artery was Tied by other Surgeons.—*Case 1.*—The first case in which an attempt to tie the subclavian artery, by cutting above the clavicle, was accomplished, is that of Mr. Ramsden, of London.* John Townly, a tailor, aged thirty-two, of very intemperate habits, and peculiarly unhealthy aspect, was admitted into St. Bartholomew's Hospital, Tuesday, November 2, 1809, on account of aneurism in the right axilla. The most prominent part of the tumor was about half as big as a large orange, and there was also much distension underneath the pectoral muscle, so that it was impossible to bring the elbow near the side of the body. The limb, although it retained its temperature, soon became œdematous, and the pulsation of the radial artery, already very faint, at length entirely ceased. On the evening of the twelfth day a dark spot appeared on the centre of the tumor, surrounded by inflammation, which threatened more extensive destruction of the skin. A farther postponement of the operation being deemed inadmissible, Mr. Ramsden performed it the next day, tying the artery on the outside of the scalene muscle. The shoulder being considerably elevated by the tumor, great difficulty was experienced in passing the ligature; this, however, was finally overcome by a probe of ductile metal and a pair of small forceps. As soon as the artery was tied, the pulsation in the swelling ceased; the limb afterwards fully retained its temperature; and the tumor had already somewhat diminished in volume, when about five days after the operation the patient expired. On examination, it was ascertained that the subclavian artery, where the ligature was applied, was so nearly separated that it was held together only by a few shreds of dead matter. Each extremity of the vessel appeared to be completely consolidated and impervious, leaving no doubt of its being fully competent to resist the impetus of the blood from the heart. The aneurismal sac contained about two pints of blood, the greater part of it in a fluid state; the heart and large vessels were perfectly sound, even the subclavian, excepting at the side of the ligature; and the collateral vessels did not seem to have acquired any increase of capacity beyond what is natural to them.

Case 2.—In the year 1811, the subclavian artery was tied in the London Hospital, in a case of axillary aneurism, by Sir William Blizard. The patient, who was old and debilitated, died on the fourth day, though strong hopes were at first entertained of recovery.†

* Ramsden's Practical Observations on Surgery, p. 276.

† Hodgson on the Diseases of the Arteries, &c.

Case 3.—A clergyman, 48 years of age, of a stout athletic frame, and who had always enjoyed the most robust health, was affected with axillary aneurism, in consequence of a fall from his horse in December, 1812. In July following, the tumor was fully as large as a goose egg; on the sixteenth of that month Dr. Colles, of Dublin, secured the right subclavian artery with two ligatures on the acromial side of the scalene muscle. The time occupied by the operation is not stated. Death occurred on the fourth day from inflammation of the chest and limb.*

Case 4.—In 1815 Mr. Thomas Blizard secured the subclavian artery in the London Hospital. The case was one of aneurism in the left axilla; the ligature was applied at the usual point "with great facility;" and the patient died on the evening of the eighth day, previously to which event the ring and middle fingers turned black. On dissection the pericardium exhibited the effects of high inflammation; the heart, of a deep red colour on its posterior surface, was covered with flakes of lymph; the lining membrane of the aorta, right carotid and left subclavian was of a scarlet complexion, and the boundaries of the aneurismal tumor were in a state of sphacelation.†

Case 5.—This was the first case in which complete success attended the deligation of the subclavian artery; immediately after its exit from between the scalene muscles. The patient was a gentleman, with an aneurism in the left axilla. The tumor was of large size, and had encroached so much upon the clavicle as to throw it considerably above its natural level. The ligature was passed under the artery with great facility, and immediately on tying it all pulsation in the brachial and radial arteries ceased. In the afternoon the temperature of the limb was observed to be rather higher than that of the other arm. The operation was performed by the late Professor Post, of New York, on the 8th of September, 1817. On the 17th the aneurismal tumor burst, followed by a discharge of about three ounces of dark grumous blood. On the 26th the ligature was detached from the subclavian artery; and before the middle of October the wound was perfectly cicatrized.‡

Case 6.—On the 7th of March, 1819, Baron Dupuytren, surgeon to the Hotel-Dieu of Paris, tied the subclavian on the left side, just as it emerges from behind the scalene muscle, in a case of false aneurism of the axillary artery. The patient was of an excellent and robust constitution, thirty-seven years of age. Having been a soldier, he received, seven years ago, in a charge of cavalry, a thrust from a sword which penetrated the axillary artery. The tumor was about the size of a child's head

* Edinb. Med. and Surg. Journal, vol. 2 p. 14.

† Hodgson, op. cit. p. 602.

‡ Cooper's Surgical Dictionary.

at the time of the operation, which lasted one hour and a quarter. About the fifteenth day the ligature came away; and on the 27th of March the wound was nearly healed. The patient made a perfect recovery.*

Case 7.—On the 30th of March, 1819, Dupuytren performed his second operation for axillary aneurism. The patient, formerly a soldier, forty years of age, and labouring under constitutional syphilis, received a wound from a flat-bladed lance in 1815. The tumor remained small for a considerable period, and then suddenly attained a great volume, extending itself under the pectoral muscle, and elevating the clavicle. The ligature was applied on the acromial margin of the scalene muscle, after one hour and forty-eight minutes; and the case terminated fatally on the ninth day, the swelling having been invaded by gangrene, and the patient having experienced several severe attacks of hæmorrhage from the wound.†

Case 8.—The next case is that of Robert Liston, Esq., of Edinburgh, who tied the subclavian artery on the third of April, 1820.—This was the first successful operation of the kind in Scotland. The patient, Alexander Gibson, a coachman, aged 35 years, referred the origin of his disease to a fall five months ago, in which he pitched on the left shoulder. Latterly the swelling increased with great rapidity, and seemed to extend above the clavicle, which it had very considerably displaced upwards. During the operation, which lasted altogether about half an hour, the anterior scalene muscle was divided. The ligature separated on the twelfth day, and the wound was completely cicatrized by the 8th of May, the tumor having in the meanwhile greatly diminished in size.‡

Case 9.—John Robertson, a porter, aged 47, was admitted into the Royal Infirmary of Edinburgh on the 7th August, 1823, for an aneurism of the left side, extending along the lower margin of the clavicle to the axilla. The tumor arose without any assignable cause, and when first noticed, about three weeks before, was scarcely larger than a bean. On the 23d, Wishart secured the subclavian artery external to the scalene muscle, the operation occupying only "a short time." On the sixteenth day after, the ligature was found lying loose in the wound; and a rapid recovery followed.§

Case 10.—In a patient upwards of 60 years of age, in St. Thomas' Hospital, Mr. Travers tied the subclavian artery, January, 17th, 1823, for axillary aneurism. The great elevation of the clavicle rendered the operation very difficult, independently of the profuse hæmorrhage.

Altogether it occupied upwards of two hours. The patient died on the third day.*

Case 11.—George Vaughan, aged 36, a man of robust frame, an extra-tide waiter by occupation, lacerated his axillary artery in July, 1823, while making a sudden exertion with his arm. An aneurismal tumor rapidly formed, which by the end of August was about four inches in diameter, distinctly circumscribed, and extending from the lower edge of the clavicle to the lower border of the pectoral muscle. On the 20th of September, Charles Aston Key, Esq., of London, tied the right subclavian on the acromial side of the scalene muscle, the operation lasting twenty minutes. The ligature was detached on the twelfth day, and the patient speedily recovered. This appears to be the first case in which this vessel was secured with success in the London hospitals.†

Case 12.—Thomas Overall, brass-founder, aged 33, was admitted into St. Thomas' Hospital, August 1, 1825, under the care of Mr. Green, for aneurism of the right axillary artery. The tumor had existed upwards of five months, and was about the size of a large orange. His shoulder had been dislocated some time previously, and to that accident he attributed his present disease. "A long time elapsed in coming down to the artery," which was finally secured at the usual situation. Every thing went on well until the thirteenth day, when secondary hæmorrhage set in, which considerably weakened the patient, and rendered the success of the operation for a while doubtful. On the eighteenth day the wound was nearly healed, but the ligature had not yet separated from the artery.‡

Case 13.—John McIntyre, aged 43, presented himself to Mr. Liston, of Edinburgh, September, 1826, with a very large aneurismal tumor in the right axilla, equalling in volume a common-sized foot-ball. It passed upwards underneath the collar bone, which it had raised considerably, and downwards below the border of the axilla, pressing in the ribs and flattening the chest. About Christmas, 1825, he fell on the ice with his arm stretched out, and to this accident he ascribed his disease. On the 12th of September, Mr. Liston tied the subclavian artery at two points, the last close to the outer edge of the scalene muscle; and, although every thing promised well for a while, yet death occurred on the fourteenth day, preceded by slight hæmorrhage from the wound. On dissection the vessel was found to be considerably diseased; the wound was filled with coagula; and at neither of the points of deligation was there much appearance of reparation.§

* *Edinburg Med. and Surg. Journal*, vol. 16, p. 476.

† *Edinburg Med. and Surg. Journal*, vol. xvi. p. 199.

‡ *Op. cit.* vol. xvi, p. 348.

§ *Op. cit.* vol. xxi, p. 15.

* *London Medico-Chir. Mag — Phila. Jour. Med.* vol. vii, p. 183.

† *Trans. of the Royal Med. and Chir. Society*, vol. xiii.

‡ *Lancet*, vol. viii, pp. 189–283.

§ *Edinb. Med. and Surg. Jour.*, vol. xvii, p. 4.

Case 14.—Thomas Wharnby, aged 36, was admitted into the Manchester Infirmary, April 16, 1827, in consequence of an aneurismal tumor in the right axilla as large as a moderate sized orange. With the exception of this disease, which was first noticed about twelve months ago, he was apparently healthy. On the 17th of June, Robert Thorbe, Esq., tied the subclavian artery at the place usually selected for that purpose, the whole operation occupying fifteen minutes. The ligature separated on the 4th of July, and the patient got entirely well.*

Case 15.—William Wetson, wood-hawker, aged 38, a stout and very muscular man, was admitted into Guy's Hospital in November, 1827. The aneurism, which made its appearance without any assignable cause about nine weeks previously, occupied the right axilla, and was about the size of an egg. The operation of tying the subclavian artery was performed, in the usual manner, by Bransby B. Cooper, Esq., on the 4th of December, and the patient had a speedy recovery.†

Case 16.—Professor Gibson of the University of Pennsylvania, tied the subclavian artery on the 17th of March, 1828, for axillary aneurism in John Langton, a muscular athletic man, a labourer by occupation, aged thirty-five. The disease was produced two days previously in an attempt to reduce an old luxation of the left shoulder-joint. The vessel was secured close to the outer margin of the scalene muscle; and the patient died on the 23d of March, the eighth day after the operation. The left hand and fore-arm were in a state of incipient gangrene, and no coagulum or trace of lymph could be observed above the ligature.‡

Case 17.—Hermenegildo Gonzales, a poor farmer, the father of three children, of small stature and spare habit, sixty-one years old, had always enjoyed good health until October 1827, when he began to feel pain along the course of the scalene muscles of the right side, which he supposed might have been occasioned by violent horse-back exercise. This was soon followed by the development of a tumour in the axilla, which by the early part of the following April was of a hemispherical form and measured three inches in diameter. The subclavian artery was tied by Dr. Edward W. Wells, of Maracaybo, on the 13th of April, on the acromial side of the scalene muscle; the ligature came away on the third of June, by which time the tumour had decreased to the size of a walnut; the wound was completely cicatrized by the fourteenth of that month; and the patient lived nearly three years after the operation, dying finally of ulceration of the bladder.§

* *Medico-Chir. Review*, January, 1828.

† *London Med. and Phys. Jour.*, Feb., 1828.

‡ *American Journal of the Medical Sciences*, vol. ii, p. 136.

§ *American Journal of the Medical Sciences*, vol. iii, p. 28. See also vol. xiii, p. 406.

Case 18.—A stout muscular individual, a fisherman by occupation, aged forty-six, was admitted into the Parochial Infirmary at Davenport, England, June 10th, 1830, with a large, tense, pulsating tumour on the right side, extending from the cartilage of the fifth rib to the axilla on the point of the shoulder. It made its appearance about thirteen weeks previously, soon after an attack of rheumatism of the right arm; in a month it was of the size of a walnut, and in a fortnight thereafter it attained its greatest volume. On the 23d of June, Mr. Cross- ing tied the subclavian near its exit from between the scalene muscles, the whole operation lasting twenty-five minutes. The ligature came away on the *eighty-fifth* day, and in December following the tumour had nearly disappeared.*

Case 19.—William Hines, of Smithville, Virginia, labourer, twenty-eight years of age, became a patient of Professor Mott of New York, August 24th, 1830, for axillary aneurism of the right side. The tumour was about the volume of a goose-egg, and made its appearance seven weeks ago, soon after a violent strain produced by carrying a canoe on hand-bars across the arms. His general health was good. The artery was tied a little external to the scalene muscle, and at the expiration of twenty-seven days the wound was perfectly healed; the aneurismal tumour being very hard and much diminished in volume. The operation lasted fifteen minutes.†

Case 20.—The subject of this case was a man sixty-three years of age, who attributed his disease to a hurt received sometime before. The tumour, which resembled the section of an oblate spheroid, extended from the clavicle into the axilla of the right side, being about the size of a large orange. The operation of tying the subclavian artery was performed on the 17th of December, 1830, by W. Bland, Esq. of Australia; and the ligature fell off on the 29th of January, leaving the wound entirely healed.‡

Case 21.—In 1830, William H. Porter, Esq., of Dublin, tied the left subclavian successfully at the Meath Hospital, in a man forty years of age. The aneurismal tumor was situated at the part corresponding to the division between the great pectoral and deltoid muscles, had a firm pulsating feel, and was nearly of the volume of a goose-egg, having slightly displaced the clavicle. The ligature was applied at the usual point, and for about a month every thing progressed favourably. At the end of this time the tumour, which had diminished in size, began to increase and become painful, and, notwithstanding the diligent employment of anti-

* *Medico-Chirurg. Review*, vol. xv, p. 507.

† *American Journal of the Medical Sciences*, vol. vii, p. 309.

‡ *American Journal of the Medical Sciences*, vol. ix, p. 527. See *London Medical and Surgical Journal*, Oct. 1831.

phlogistic measures, went on to suppuration. An incision being made into it, it discharged about a pint of foetid purulent matter, mixed with large black clots of blood. Under the use of pressure it soon healed, and the man eventually recovered.*

Case 22.—In this case the artery was secured by Charles Mayo, Esq. of Winchester, England, March 26, 1831. The patient, W. Matthews, was forty-nine years of age, and the tumor, which was about six weeks' standing, occupied the left claviculo-axillary region. The ligation was completed in a little more than twenty minutes. On the 10th of May the wound was perfectly healed, and the tumour had disappeared.† Mr. Mayo operated, but unsuccessfully, on a similar case ten years before, the particulars of which I have not been able to obtain.

Case 23.—The next case of axillary aneurism in which the subclavian artery was tied, is that of William Ferguson, Esq. of Edinburgh. The patient, Mark Robson, a waiter, aged sixty, of intemperate habits, could assign no cause for the original appearance of the disease, but thought it might have resulted from some injury on the arm during one of his drunken fits. The tumour, which was scarcely perceptible for many months, rapidly increased within the last six weeks, and was now about the size of a large fist. The operation was performed in the usual manner on the 12th of May, 1831; the ligature separated on the 13th of June; and a rapid recovery followed.‡

Case 24.—Robert Blackwood, a weaver, aged sixty-five, was admitted into the Royal Infirmary of Glasgow in June, 1833, on account of a strongly pulsating tumour under the left clavicle, extending towards the lower part of the axilla. It was of an oblong, pyriform shape, measuring fully six inches in one direction by two and a half in the other. The swelling first appeared *above* the clavicle eighteen months ago, and, with the exception of cough and dyspnoea, both of which were aggravated on assuming the horizontal posture, the health of the patient was quite good. Dr. William Auchincloss tied the subclavian artery *within* the outer-third of the anterior scalene muscle, the operation, dressing and all, occupying about forty minutes. Death occurred in sixty-eight hours and a half, from effusion of serum on the surface and into the ventricles of the brain.§

Case 25.—Mrs. Hain, a weaver, of a spare habit of body, aged forty-two, had a pulsating tumor in the left axilla, which, on the 16th of

April, 1834, was about the size of a man's fist. She could assign no cause for its origin, and first perceived it about ten years ago, when it was very small, and produced little or no inconvenience, even when engaged at her usual employment. Within the last six months it has increased with considerable rapidity, and eight days ago, when she experienced a sensation as if something had given way, she observed that the swelling had assumed a different shape and was much larger than previously. The local suffering also greatly augmented, and the general health became sensibly impaired. The subclavian artery was tied by Professor Lizars, of Edinburgh, on the 27th of April, on the acromial side of the anterior scalene muscle, in the short space of ten minutes. Scarcely any blood was lost; about sixty hours after the operation the pulsation could be felt in the arteries at the wrist; and the woman rapidly recovered without any untoward occurrence.*

Case 26.—The next case in which the subclavian was tied, and the last which I shall mention on this occasion, is that narrated by Dr. Samuel Hobart, of Cork. The tumor, which was situated immediately under the right clavicle, near its acromial extremity, was of the volume of a large duck-egg, and was first observed about four months previously, without any assignable cause. The patient, John Wright, aged 38, was "a respectable citizen of Cork, and of good bodily habits." The artery was readily secured on the acromial side of the scalene muscle on the 7th of May; the ligature was detached about the sixteenth day; and on the 30th of July the tumor had almost wholly disappeared.†

From the preceding abstract it will appear that there was only one female in the twenty-six cases. Axillary aneurism may therefore be regarded as being much more common in men than in women; agreeing, in this respect, with aneurism of the carotid, iliac, femoral, and popliteal arteries, as well as with that of the aorta.

Of these twenty-six patients, seventeen, or nearly two-thirds, were *cured*. Of the remaining nine, two died on the third day; one on the fifth; two on the fourth; two on the eighth; one on the ninth; and one on the fourteenth. The cause of death, as might be expected, was not alike in all the cases. In one—that of Dr. Auchincloss—it evidently resulted from the effusion of serum on the surface and into the cavities of the brain. In Professor Gibson's case, the left hand and fore-arm were in a state of incipient gangrene, and no effort had been made at reparation, although the patient lived until the eighth day. In John McIntyre, on whom Mr. Liston operated in 1826, slight hæmorrhage occurred a short time before death,

* Dublin Hospital Reports, vol. v. 1830. North American Medical and Surgical Journal, vol. xii. p. 106.

† Medico-Chir. Review, vol. xv. p. 482.

‡ Edinburgh Medical and Surgical Journal, vol. xxxvi. p. 309.

§ Edinburgh Medical and Surgical Journal, vol. xlv. p. 324.

* Lancet, 1834, vol. ii, p. 717.

† Edinb. Med. and Surg. Journal, vol. xlv. p. 48.

which happened on the fourteenth day; and on dissection it was found that the artery had given way in consequence of ulcerative absorption. In this case, too, scarcely any attempt had been made at restoration. In case vii, death occurred on the ninth day, preceded by several slight attacks of hemorrhage from the wound, and by gangrene of the aneurismal tumor. In the patient operated on by Dr. Colles, violent inflammation was discovered in the chest and limb; and in the case of Mr. Thomas Blizard, there were evidences of severe pericarditis and arteritis, with sphacelation of the aneurismal swelling and of the ring and middle fingers. In the other two cases no mention is made of the cause of death.

In ten of the cases, the disease occurred on the *left side*, in twelve on the right. The *youngest* of the patients was twenty-eight years of age; nine were between thirty and forty; eight between forty and fifty; and five between sixty and seventy; the oldest being sixty-five. In regard to their *occupation*, two were soldiers, one a gentleman, one a tailor, one a clergyman, one a coachman, one a farmer, one a wood-hawker, one a fisherman, one a tide-waiter, one a brass-founder, two weavers, two labourers, and two porters.

The *cause* of the disease is distinctly stated only in ten of the cases. In most it was produced by external violence, as a fall or strain. In the case of Professor Gibson, the tumor was developed soon after a fruitless attempt at reducing an old dislocation of the shoulder-joint; and in the soldiers operated on by Dupuytren the lesion was of a traumatic kind, the axillary artery being perforated by a sharp-pointed instrument. In one of the cases, that of a fisherman, forty-six years of age, the disease was attributed to the effects of rheumatism.

The *duration* of the disease varied from a few days to several years. In the case reported by Dr. Gibson, already alluded to, it was only of two days's standing; while in one of Dupuytren's it had existed for seven years, and for ten years in the one which fell under the observation of Professor Lizars. In this case, No. xiv, the aneurism came on without any assignable cause, and remained small until within six months of the time of the operation. In the other fourteen cases, in which I have been able to determine this point, the duration of the disease, prior to the deligation of the subclavian artery, was as follows:

In 1, 5 months; 1, 5 weeks; 1, 2 months; 1, 8½ months; 1, 12 months; 1, 10 weeks; 1, 7 months; 1, 7 weeks; 1, 3 months; 1, 6 weeks; 1, 18 months; 1, 4 months; 1, 4 years.

With respect to the *volume* of the aneurismal tumor, no definite information can be derived from the above cases, owing to the vague and unsatisfactory manner in which this subject has been treated by the reporters. Of the

twenty-one cases in which this point is noticed, the following table may be presented, it being impossible to deduce any general conclusion from them.

In case 1, the tumor was "large;" in case 3, of the size of a goose-egg; in case 5, "large;" in case 6, child's head; in case 7, "very large;" in case 8, "large;" in case 10, "large;" in case 11, four inches in diameter; in case 12, very large; in case 13, foot-ball; in case 14, orange; in case 15, egg; in case 17, three inches in diameter; in case 18, "large;" in case 19, goose-egg; in case 20, large orange; in case 21, of the size of a goose-egg; in case 23, large fist; in case 24, six inches by two and a half; in case 25, fist; in case 26, duck-egg.

The length of time occupied in *performing the operation* is stated only in eleven cases, in which it varied from ten minutes, the minimum, to upwards of two hours, the maximum; the operator, in the former case, being Professor Lizars of Edinburgh, in the latter, Mr. Travers of London. Baron Dupuytren also consumed one hour and forty-eight minutes in one of his operations. In the remaining eight cases, the deligation of the subclavian occupied, in two, twenty minutes; in two, fifteen minutes; in one, twenty-five minutes; in one, forty minutes; and in two, thirty minutes.

In twelve of the cases the *ligature separated*, in three, on the twelfth day; in one, on the fifteenth; in two, on the sixteenth; in two, on the eighteenth; in one, on the thirty-second; in one, on the forty-third; and in one—that of Mr. Crossing—on the eighty-fifth.

FOREIGN.

Case of Dislocation of the Cervical Vertebrae cured. By Dr. SCHUK, of Vienna.—A man, 24 years of age, whilst engaged at his work on the 5th of December, 1838, twisted his head suddenly round, in consequence of one of his companions roaring into his ear, when he instantly felt something give way in his neck, and found it impossible to move his head. Next morning, when he applied for assistance, his face was swollen, his head turned to the right, and bent down towards the shoulder. His neck was slightly arched on the left side, but hollowed on the right. He complained of pain, which was augmented on pressure over the seat of the third, fourth, and fifth cervical vertebrae, and he was unable to move the head in any direction; every attempt to do so gave pain. The direction of the spinous processes of these vertebrae could not be accurately ascertained. He complained of weakness of the right arm, and could only raise it with great effort. The other functions of the body appeared to be natural. It was thus apparent that partial dislocation of some of the cervical vertebrae existed, and some attempts were made to

reduce it by drawing the head directly upwards, the trunk of the body being held fixed; these, however, failed, but they gave no pain.

On the 7th of December, the weakness and numbness of the right arm were greater. Now efforts were therefore made to effect the reduction of the dislocation. The patient was laid in the horizontal posture, the shoulders were held fixed by means of folded sheets, whilst a towel was passed under the chin, in order to allow of a greater force being used for the extension; an assistant supported the occiput with both his hands. Extension was then made and gradually augmented, till the patient and assistant felt a snap as of two bones meeting. The extension was then gradually relaxed, when it was found that the head was restored to its normal position, and the power of moving it was restored. The weakness of the limb, however, remained, and was even worse next day. On the 9th he complained of vertigo and starting during his sleep, and his pulse was quick. For this he was bled to a considerable extent, which induced fainting and convulsions. He passed, however, a good night, and next day his pulse was nearly natural, the vertigo was gone, and he had partially regained the use of the right arm. He left the hospital cured on the 13th.—*Ed. Med. and Surg. Journ.*, from *Medizinische Jahrbuch des Oesterreichischen Staates*, vol. xxx, 1840.

On the best mode of treating cases of Poisoning by Arsenic. By M. ORFILA.—Rasori and Giacomini sometime ago advanced, that the ordinary antiphlogistic treatment usually practised in cases of poisoning by arsenic was decidedly hurtful, and that, from their experiments on forty-seven dogs, a stimulant and tonic plan of treatment was that best fitted to effect a cure. With the view of ascertaining the truth of this statement, M. Orfila, in the presence of a commission of the Royal Academy of Medicine, and of many of his friends, experimented on one hundred and fifty-seven dogs; and the following is a short abstract of his extended inquiry:

1. Twelve dogs had their œsophagus tied, and the ligature left on for thirty hours. When removed at the end of this period, the animals eat and drank freely, and seemed no ways injured; and the wound in the neck healed in a few days. The experiment was for the purpose of ascertaining what amount of suffering was to be attributed to the ligature in the subsequent experiments, where the œsophagus was tied to prevent the poison being vomited.

2. To three dogs were administered the stimulant and tonic mixtures, said by the Italian physicians to be so successful in the treatment of arsenical poisoning; but they were found in every case to produce death in a few hours, the animals exhibiting all the symptoms of intoxication, and also occasionally acute internal pains. The mixture was composed of eight

ounces of beef tea, two ounces of brandy, and the same quantity of wine.

3. Arsenic in powder was introduced into the subcutaneous cellular tissue of the inside of the thighs of thirty-four dogs, and the following was the result:—Two grains was the quantity used for each dog; and the first five being left without any treatment, died in from thirty to forty hours. Ten dogs were treated by the Italian tonic plan and all died. Four were allowed lukewarm water, but also died, having passed very little urine. Seven dogs were bled about six or seven hours after the introduction of the poison; but they all died. Six dogs had diuretic medicines administered to them, composed of six pounds of water, one pound of white wine, and one ounce of saltpetre, with the occasional addition of a little Seltzer water, and all recovered. They passed large quantities of urine, which contained arsenic, as was ascertained by analysing it in the apparatus of Marsh. Four other dogs, treated by the saltpetre water died; but they scarcely passed any urine.

4. Forty-one dogs were made to swallow arsenic in powder, in quantities varying from three and a half to ten and a half grains, with the following results:—Four dogs whose œsophagus was not tied recovered without any treatment, having expelled the poison by free vomiting. Four dogs whose œsophagus was tied died in a longer or shorter time. Four dogs who were allowed to vomit recovered, although subjected to the stimulant treatment. A ligature was kept round the œsophagus of seven dogs for a variable length of time, from two to thirty hours, and the animals were subjected to the Italian stimulant treatment; four only died. Of those which recovered, two vomited after the removal of the ligature, which in one was after two hours and three-quarters, and in the others after five hours and a half, but all passed an abundant quantity of urine. Four dogs had quinine administered to them in a decoction of cinchona bark; but their œsophagus was tied, and they all died. No urine, or only very little, was passed by them. Nine dogs who were subjected to the aqueous treatment, and were allowed to vomit, all recovered. They all vomited and passed urine freely. Of nine dogs who were bled, seven recovered. In four of them the œsophagus was tied for three, four, and five hours, and blood-letting was the only remedy used. The other three were allowed to vomit.

5. In this series of experiments, the arsenic was dissolved in water, and then introduced into the stomach, the same quantities being used as in the former series of experiments. Seven dogs, three of whom had the œsophagus tied for three hours, died in a few hours, though several of them vomited. Eighteen dogs, who had each about four grains of arsenic administered to them, and had the œsophagus tied for from forty minutes to two hours, all died, in

spite of the Italian stimulant treatment. One large dog vomited a part of the solution, and recovered; it had also been subjected to the stimulant treatment. Eight dogs, which vomited freely a few minutes after taking the poison, and were subjected to the aqueous treatment, recovered. They all passed large quantities of urine. Another dog, which did not vomit for one hour, died, though it was similarly treated. Two others, which had the œsophagus tied, the one for three-quarters of an hour, the other for fifty minutes, died. Thirteen dogs, were bled, but only two recovered. Nine dogs were bled, and had also hot water given to them, and seven recovered. The two which died had the œsophagus tied, and vomiting, of course, prevented for fifty minutes.

6. This series of experiments was undertaken with the view of ascertaining whether the exciting a copious diuresis would have the effect of obviating a fatal result, when other poisonous agents were administered. Tartrate of antimony was the first poison selected: and M. Orfila found, that one grain and a half introduced into the cellular substance of the thigh produced death in four dogs in the space of from seventeen to thirty-six hours. Five dogs were similarly poisoned, but had diuretic drinks administered to them, and four recovered. They passed large quantities of urine, which was ascertained to contain antimony. The dog which died had passed no urine.

7. Opium was the poison next experimented on; and from fifteen to ninety grains of its watery extract were administered to twelve dogs, in some of the cases being applied to the cellular tissue of the thigh, at other times introduced into the stomach. But these dogs, though subjected to the diuretic treatment, passed no urine, so that he was unable to ascertain whether this poison, like the metallic salts, could be removed from the system by the action of the kidneys of these animals. He has, however, been able to ascertain that opium is passed off with the urine, having several times detected morphia in that fluid; and he thinks, however, that in man a diuretic plan of treatment might with propriety be adopted, as one means of freeing the system from the poison, diuresis being more easily induced in him, when labouring under the effects of opium, than it is in the dog.

The conclusions which M. Orfila draws from the above experiments are so very obvious, that it is unnecessary to detail them here. In poisoning with arsenic or other metallic salts, after free vomiting, the great object is to aid the expulsion of the poison from the system by exciting full and free diuresis. The Italian stimulant plan appears to be worse than useless.—*Ibid.*, from *Bulletin de l'Academie Royale de Medecine*.

Case of Poisoning with the Acetate of Lead, in which the poison was detected in the Urine. By MM. ORFILA and VILLENEUVE.—A girl, in a fit of despair, swallowed between eight and ten drachms of the superacetate of lead. She was speedily affected with prostration of strength, paleness and coldness of the surface of the body, and faintings, which symptoms were in a short time succeeded by vomiting and precordial anxiety. Sulphate of soda was given in large and repeated doses, and was followed by copious alvine evacuations. Under this treatment the poisonous symptoms went off, and the temperature of the body returned. The urine which the girl passed twenty-five hours after swallowing the poisonous dose was examined by M. Orfila, who extracted from it a considerable quantity of lead, showing that the poison which had been absorbed was thrown off from the system by means of the kidneys.

M. Lassaigne, of Alfort, made a number of experiments at the veterinary school there, with the view of ascertaining in what secretions or organs the lead with which animals have been poisoned is found. He constantly met with it in large quantity in the venous blood and in the urine of living animals, and in the liver and kidneys after death.

MM. Chevallier and Bricateau have examined the urine of the workmen in the lead manufactories, especially at the time when they were affected by this metal, but have as yet been unable to detect it even in the most minute quantity in that fluid. M. Orfila, also, was unable to detect its presence in the body of a child supposed to have been poisoned from breathing its vapours.—*Ibid.*, from *Bulletin de l'Academie Royale de Medecine*.

Case of Poisoning by Tobacco.—By M. TAVIGNOT.—A strong man, of 55 years of age, had a tobacco enema administered to him for the relief of ascarides in the rectum. The enema was ordered to be composed of one drachm and a half (60 centigrammes) of tobacco leaves in about six ounces of water, but by mistake 15 drachms (60 grammes) of tobacco were used, and administered before the mistake was discovered. Seven or eight minutes had scarcely elapsed from the period of its administration before stupor, headach, and extreme paleness of the face made their appearance; pain was complained of in the abdomen, the speech became thick and indistinct, and slight convulsive movements were observed. A purgative enema was immediately administered, stimuli and strong coffee were also given, cloths dipped in cold water were applied to the head, and sinapisms to various parts of the body. He was also bled pretty freely.

Notwithstanding all these means, the paleness of the face and surface of the body increased, the expression of the face was indicative of pain and stupor, the pupils of the eyes

were natural, the respiration became more and more laborious and slow; his intellectual faculties seemed to be greatly weakened, but he still occasionally understood questions which were put to him, though unable to answer to them distinctly; convulsive tremors were first observed in the arms, but soon extended to the legs and trunk of the body, and went on increasing in severity for six or seven minutes, after which a state of complete prostration came on, attended with slow very painful respiration. Well marked coma, with complete relaxation of all the muscles of the body, preceded the fatal termination, which took place about eighteen minutes after the administration of the enema. The pulse stood at 68 before the blood-letting, and 44 after it. No vomiting occurred in this case.—*Ibid*, from *Gazette Medicale de Paris*.

On the length and strength of the Umbilical Cord at the full term of Pregnancy. By Dr. NEGRIER. (*Annales d'Hygiene Publique*, January, 1841.)—A girl of bad character was accused of having strangled her child by means of the umbilical cord, before it was completely expelled from the uterus. As there was a difference of opinion amongst the medical men as to the possibility of the umbilicated cord possessing sufficient strength or length for this purpose, Dr. Negrier performed a number of experiments, for the purpose of ascertaining the strength of the cord, and measured it in 166 cases to arrive at its average length.

Of the 166 cases it was remarked that in 144 the umbilical cord floated free within the uterus; in twenty cases it was rolled around the neck of the child; in one it was round the shoulders; and in one between the thighs, the breech presenting in this case. Ninety-eight of the umbilical cords were not varicose, and sixty-eight were varicose. As to length, twenty-eight were 17 inches long, 112 were from 17 to 25½ inches long, and twenty-six above that length.

The resistance of the umbilical cords was ascertained by attaching weights to one end of the cord until it ruptured, the weights being always attached to the placental extremity. About one-half of the cords were passed by their middle over a round bar, and weights attached until they gave way; the other half of the number were rolled once and a-half round the same bar, covered with linen, so as to bring it to the diameter of the child's neck, when it was found that these supported a greater weight than those over the plain bar. The varicose umbilical cords were ruptured with a lesser weight than the sound cords, and generally gave way at one of the varicose dilations. The mean weight which these varicose cords supported before they gave way was 8 pounds Troy; the most restraint supported 14 pounds 17 ounces. The medium resistance of the non-varicose umbilical cords was 14 pounds 4 ounces Troy;

but one cord required 25 pounds 3 ounces to rupture it.

Dr. Negrier next made a few experiments to ascertain what weights suspended round the neck of an adult would produce such a degree of compression as to cause unpleasant feelings or strangulation. A weight of 8 pounds was suspended to a cord passed once and a-half round the neck, the back of the neck being upwards. The respiration was rendered difficult, and the brain strongly congested in two minutes. Vertigo commenced soon afterwards. The respiration, however, could be continued with difficulty. When the face was placed upwards the effects of the congestion were more rapid; the respiration was much impeded, but was still possible; but Dr. Negrier thought that death would have resulted if this position was maintained for a quarter of an hour.

When the experiment was made with a weight of 13 pounds, and the face downwards, rapid congestion of all the vessels of the head took place; the eyes became injected, and filled with tears; the respiration was very laborious, but was still possible. It was, however, dangerous to continue the experiment for two minutes.

When the same experiment was repeated, but with the face looking upwards, the strangulation was almost complete. Respiration was so impeded that Dr. Negrier thinks death would have resulted in less five minutes.

From these facts, he infers that the umbilical cord is both long enough and strong enough to produce strangulation in a new-born infant, by being twisted round its neck after the head is delivered. A force applied to a cord equal to 12 pounds would strangle an adult in five minutes, and a much lesser force would strangle a child.—*Ibid*.

Case of severe epilepsy arising from enlargement of the nerves.—M. D., æt 21, was brought to the hospital on the evening of the 17th of Feb. 1840, with the left hand lacerated by machinery. The first three fingers, and half of the little finger, were carried away; and the inner side of the thumb, the palm, and back of the hand, lacerated. The crushed bones were removed at the nearest joints, and as much as possible saved, to form flaps, which were brought over the wound by adhesive straps, and water dressing applied. For some time she went on well, but on the night of the 6th of March, she was seized with irregular convulsions, for which an anodyne antimonial draught was ordered. On the 7th she was found unable to speak, and the jaw firmly locked, but she seemed sensible, and pointed to the region of the diaphragm: pulse regular, but weak. Six grains of calomel, followed by strong cathartic enemata, were ordered; the head shaved, and bathed with vinegar and water, and a blister applied to the scrobiculus cordis. At night a draught of Tinct. of Vale-

rian, and Mur. of Morphiæ, was ordered. Next day the trismus continued, with occasional slight relaxations; the eyes were fixed and turned up, and the chest raised at times from the bed by a degree of opisthotonos. These symptoms continued, with slight remissions, for three or four days, during which time leeches and a blister were applied to the head. Large doses of Tinct. Opii administered; strong purgatives of calomel and jalap, followed by enemata, given; and the hand regularly poulticed. On the 10th, the tetanic symptoms had almost entirely subsided, and the hand looked well, but she complained much of her head. It was again blistered, and pills of Aloes, with Assafœtida given three times a day. From this time she improved regularly, and the hand continued to heal favourably till the 23d, when she was again attacked with trismus, and other tetanic symptoms. The head was again shaved, twelve leeches applied, followed by a blister, and a large dose of calomel, with cathartic enemata. This treatment was successful: the hand healed gradually, without any further alarming symptoms, and on the 7th of April she was dismissed cured.

This patient returned to the hospital on 24th of June, on account of severe epileptic attacks. She had continued well for eight or ten weeks after she was dismissed, but about a fortnight ago suddenly fell down in a fit; and these attacks gradually became more and more frequent. They now recur five or six times a day, and last about five minutes, after which she lies a considerable time in a state of stupor. As she was of a full habit, she was immediately cupped from the nape of the neck to the extent of ten or twelve ounces.

R Calomel, gr. v.; Pulv. Jalapæ ʒi. M.
Fiat pulvis, sint. vi. tales; Capiat unum indies.

26th.—No change. The fits are so severe that it has been found necessary to put her in the strait-waistcoat, to prevent her from injuring her head and arms against the walls and frame of the bed; and it requires two strong persons to keep her in bed. The head was shaved, and twelve leeches applied, and the purgatives continued. She also had occasionally a draught of Mur. of Morphiæ with Tinct. of Valerian.

20th.—Fits continue unabated.—Adhibeantur vesicatorium amplum Capiti raso.

July 4th.—There has been a slight improvement for the last two days. She is now taking the Assafœtida pills thrice a day.

6th.—Epileptic fits have returned with severity.

R Nitrat. Argenti, gr. iv. Micæ panis, q. s. M. Fiant pilulæ xii. Capiat unam bis die.

16th.—The nitrate of silver has been continued regularly, the dose being increased to half a grain a day, without any marked improvement.

Repetatur Vesicat. Capiti. Continuentur pilulæ Nitrat. Argenti, et Pulv. Jalapæ c. Calomel pro re natâ.

22.—As she still complained much of her head, it was determined to carry depletion still farther. Accordingly she was placed upright, and twenty-two ounces of blood taken from the arm, which produced slight faintness. Continuentur cætera.

30th.—Little improvement. It has been observed for the last few days, that, when the fits are slight, they are confined chiefly to the arm that was injured. On touching the stumps of the fingers smartly, the arm is convulsively withdrawn; and, when this is done while she lies in a state of stupor, violent convulsions of the arm are produced. She also says, when questioned, that she often feels a sensation proceeding from the injured hand, up the arm to her head, before the commencement of the fits.

August 10th.—Since last report the fits have been very severe, often confined to the arm, but always one or two general fits of great violence daily. As it seemed highly probable that the disease was occasioned by an affection of the extremities of the nerves in the injured hand, it was proposed in consultation either to amputate the hand, or cut down upon and remove a part of the nervous trunks leading to it. The first was preferred; first, because the hand was of little use, the remaining thumb being contracted and immoveable; and secondly, because, as the ends of all the metacarpal nerves seemed affected, it would be necessary to cut down upon the ulnar, as well as the median nerve, which would have rendered the operation as severe, and more tedious than amputation.

12th.—The amputation was performed to-day, near the middle of the forearm, by the double flap formed by transfixion. This mode was preferred, as being the most rapid, and allowing less time for the occurrence of the convulsions.

On tracing the nerves of the injured hand by dissection, the digital branches of the median nerve, and the branch of the ulnar, which supplies the ring finger, were found enlarged to four or five times their usual size, for one-third of an inch from their termination, and their extremities bulbous, and firmly imbedded in the hard cicatrix. They were also of a slight rose colour near their extremities, and firmer than usual. The flaps adhered by the first intention, and the cicatrization was almost complete on the 30th of August. The patient never had the slightest appearance of epilepsy after the operation, and was dismissed cured on the 8th of September.—*Aberdeen Infirmary Reports, in Lon. Med. Gaz.*

Inhalation of Iodine and Conium in Tubercular Phthisis. By CHARLES SCUDAMORE, M. D.
—In my former reports, I had too much occa-

sion to express my regret at the supineness of the profession at large in regard to inhalation; but I have now the satisfaction of stating, that I have received numerous communications from different parts of the kingdom, and some from abroad, giving me full and gratifying assurance of the great value of the remedy in question; of the sensible relief which it almost invariably affords; and of not unfrequent success in the removal of existing disease. Yet I am well aware that a great part of the profession have not thought proper to pay any attention to this new method of treatment; and some, I must say, are so illiberal as to condemn it in theory, never having tried it, choosing to assert that the vapour of iodine must be an irritant to the lungs, and, *ergo*, whatever irritates the mucous membrane must be injurious, and tend to aggravate the tubercular disease. All this is merely gratuitous assertion, and is directly contrary to fact. I am well convinced that the more this remedy is adopted, and carefully studied and understood, the more will it be approved. Let it not, however, be imagined, that I claim for it, boastfully, the power of curing the tubercular disease of the lungs in its worst forms; or that I allow myself to speak of tubercular phthisis as curable in a general sense; which might serve to imply that it is not the dangerous and commonly fatal disease which it has always been considered to be. My zeal for the remedy has never carried me to this imprudent length; but I may, on the other hand, be excused if I do not join in the despondency of those who almost shrink from contending with the disease, and who send away the unfortunate patient, in any stage of the disease except quite the last, to another climate. I hold this to be an exceedingly wise measure in certain cases of the threatening of consumption, especially in young persons, whose constitution is not yet fully developed; but I also strongly condemn it, when serious disease has become established, requiring for its treatment the nicest means of art, and not a mere contentment with change of air, and climate, and attention to diet; advantages which are wholly inadequate to the cure, and too often insufficient even for the suspension of the disease. There are two conditions in which it is advisable that the invalid should pass the winter and early part of the spring in a favourable climate—the one already named, of the threatening of consumption at the early stage when the constitution is hovering on a doubtful balance; and the other for the purpose of counteracting relapse when a recovery from danger has been effected.

I am at a loss to know on what reasonable ground objections can be offered to the inhaling treatment in cases of consumption, in which the usual failure of all ordinary means is universally admitted. Besides that, the practitioner may use, in conjunction with it, any other measures to which he is attached: nor do I confine

myself of the use of the single remedy—quite the contrary. I estimate very highly the advantages of counter-irritation; the modes of which are to be varied according to the case, and the choice is to be made between seton, issue, blisters, the solid or fluid, irritant liniments of different kinds, and rubefacients. As a general principle of practice, I advocate the use of tonics, which are various in their kind, and are to be chosen with reference to the particular case and constitution. Any accidental complication of other disease with that of the lungs is to be well considered; as disorder of the liver, and a morbid state of the mucous membrane of the intestinal canal, requiring a combined and alterative treatment. The administration of sedatives at night, when required to assist the sleep, allay cough, and prevent the wearing effects of restlessness and watchfulness, is very important. I always desire that the diet should be more than usually supporting, having due regard to the peculiar circumstances of the individual case and constitution.

Let it not, therefore, be said, that I have adopted the inhaling treatment on narrow grounds, and upon an empirical principle. When the idea of the remedy first* occurred to me, I reasoned on the probability that so active an agent as iodine, brought into immediate contact with the seat of disease, might be more effective in its influence than any other ordinary treatment; and I rejoice to say, that to a very great extent my most sanguine hopes and expectations have been fulfilled.

It will, perhaps, be said, that in the successful treatment of a case of consumption, so many other useful means being employed besides inhalation, it would be unjust to allow much credit to the latter remedy. But I assert that before I thought of it, and had recourse to it, I had, in very numerous cases, year after year, made use of of all other known means of treatment in vain.

* Ten years have elapsed since I published the first edition of my Treatise on Inhalations, and I made trials of the method for a long period before I published the results. About the time of my publication, Dr. Murray, of Belfast, made known the good effects of breathing iodine vapour diffused through the apartment; and, subsequently, Dr. Corrigan, of Dublin, has given his results from a similar mode of conveying iodine vapour to the lungs, using, however, a different method from Sir James Murray in procuring it. Either plan is altogether different from mine, of *direct* inhalation by means of a glass inhaler, so that the exact dose is as accurately administered as in the use of any internal medicine. Besides which, I claim credit for the superiority of the preparation of iodine which I employ, or rather its combination; and for the important modification of its action on the mucous membrane, which is derived from the addition to the iodine mixture of a saturated preparation of conium. I sometimes add ipecacuanha. In spasmodic asthma, I use other volatile medicines alternately with the iodine and conium.

sharing the common lot of failure and success ; and I beheld consumptive disease as one beyond the reach of art. The power of iodine inhalation in controlling immediately the hectic fever, is no less remarkable than satisfactory.

In the volume of this Journal for 1834, I related a case which had been treated by Dr. Skrimshire, of Peterborough, and who, when he did me the favour to recommend the patient to my care, gave the following statement :—"This gentleman is the subject of rapid tubercular phthisis. During the few weeks that he has been under my care, we have had recourse to occasional leeching, tartar emetic ointment and blisters, to acetic acid, to digitalis, hyoscyamus, &c. I have not, however, at any time, reduced the rapidity of the pulse, or the urgency of the cough for more than a day or two ; the wasting has been progressive and rapid, and the expectoration, though never profuse, has, for the last three or four weeks, been puriform."

Nothing could be more satisfactory than the effect of inhalation of iodine and conium in this case. The hectic fever was immediately checked ; the pulse, in a short time, became moderate, and every unfavorable symptom gradually gave way, so that the patient perfectly recovered, and he remains well up to the present day ; and this is a happy and important point, which I would dwell upon with the highest gratification. The recoveries which I have at different times related, having given the details of the cases, have not been for merely a short period—a delusive convalescence, to end only in the bitterness of disappointment in fatal relapse, but lasting restoration to health and enjoyment. It is equally true, that I have often been consulted in the last stages of this sad disease, or, in some examples of its most inveterate nature, at an earlier period ; and in either of which difficulties, if I had sought only the care of my own reputation, I would not have used inhalation, being certain of eventual failure ; but the superior consideration of humanity always led me to employ the remedy for the sake of palliating suffering. A gentleman thus circumstanced with hopeless disease, declared that, although he was too well convinced he could not possibly recover, he wanted language to express his gratitude for the exceeding comfort and relief which he received from inhalation. It surely ought not to be stated as the reproach of any method of treatment, that it will not always succeed. In diseases of other organs of the body, as the stomach, the liver, or kidneys, or other parts, human skill will sometimes fail. How much greater is the difficulty of contending with disorganization of the lungs?

Yet, even in some very aggravated cases of tubercular excavation, I have been agreeably surprised by the recovery of the patient. In the case which I reported in the "Medical Gazette," vols. for 1840, the prognosis at first

could only be unfavorable. Mr. King, of Portland-terrace, Regent's-park, attended the patient with me. I extract from his written statement the following particulars of the case :—"The left lung gave strong puerperal resonance ; the right lung was pectoriloquous, from the root to the mamma ; there was much gurgling, and percussion was dull over the greater part of the right side ; it was also much smaller than the left, and hollow at the clavicle. The body was much reduced ; he had profuse hectic sweats, and the expectoration was copious, puriform, and very offensive ; the pulse rapid. His debility was so great, that, to use his own words, he felt to be dying from day to day. The night perspirations were most profuse, and he was often sleepless. On the first inhalation, he expressed himself very sensibly relieved ; afterwards his breathing was never oppressed in going up stairs, as it was before using the inhalation ; and with a little more interval, he was able to walk two miles without fatigue."

I have lately seen this patient, and have the satisfaction of finding that there is every evidence of the cavity being almost healed, and the restored condition of the patient ; his improved complexion, formerly so swarthy, from the imperfect function of the lungs ; his increased bulk and accession of good strength, with altered spirits ; and his former despair changed to confidence of attaining health, formed a picture at once most pleasing and satisfactory.

In the last winter I attended a gentleman, with Mr. Carter, of Dorset street, who labored under the most alarming symptoms from chronic bronchitis, and whose appearance wore the strong stamp of the last stage of tubercular phthisis. He was emaciated, and reduced to great debility ; the pulse rapid ; respiration labored and quick ; cough extremely harassing, with foul and profuse expectoration, frequently also colored with blood ; perspiration excessive ; nights sleepless, and the apprehension of death. I persuaded myself that no ulceration had taken place, and I ventured to hope for success. Mr. Carter can bear his full testimony to the admirable effects produced by the inhalation of iodine and conium. The patient perfectly recovered.

Recently I have had a young gentleman under my care, recommended to me by Mr. Norton, of Dorset street, whose appearance was strongly consumptive. He was thin, pale, and much debilitated ; night perspirations excessive ; little sleep during three weeks, and the cough almost incessant day and night, with sputum of a suspicious character ; oppression of the chest, with the breathing much hurried on slight exertion ; loss of appetite and spirits ; the pulse frequent and weak ; the animal heat 99° to 100°. Respiration was scarcely audible over any part of the left side, and on percussion there was general dullness. The evi-

dence of great tubercular obstruction was very clear; the signs on the right side were favorable. Already the happiest results from inhalation and other treatment have been produced. The cough became immediately relieved: appetite, sleep, and spirits have returned. At my first visit he was fatigued and distressed by only slight exertion; and now he can, without difficulty, walk three or four miles. In a word, the patient expresses himself to be getting well. I confidently expect his recovery.

With all the experience, therefore, which I have now enjoyed of the *methodus medendi* in consumption and chronic bronchitis, I trust I may be allowed to express myself in terms of that warm confidence and satisfaction, which a few trials and a shorter experience would not have warranted; and I will repeat the observations which I offered in my preface to the second edition of my Treatise on Inhalation.

"With my recorded conviction that the use of iodine by inhalation is productive of results highly and permanently beneficial; and that the constitution which prohibits its continuance is peculiar, and a rare exception to ordinary experience; I must express my earnest hope that the subject may receive from the profession at large such a full and dispassionate attention as is suited to its importance. It is not on selfish grounds that I advocate the practice. What concerns my reputation or advantage is personal and transient, and of little moment: what relates to science and to the interests of mankind, is for all ages, and of inestimable importance."

Deeply impressed, therefore, with the good results which my long experience had afforded me, I became desirous of contributing my exertions towards the establishment of an institution for the relief of the poor, afflicted with the diseases of the chest; that class of the community whose sufferings in illness are so bitterly aggravated by the stings of poverty, and who cannot command, like those more gifted by fortune, the advantages of good attendance and expensive medicines. I am happy to add, that this institution has taken root under the title of the *West London Dispensary for the Diseases of the Chest*, situate in Wells-street, Oxford-street.* During the last year great relief has been afforded to upwards of two hundred sufferers from consumption, bronchitis, and other affections of the air-passages, and from complaints of the heart; and many important

* It is fully intended, as it is most earnestly desired, that this institution should grow into an infirmary or hospital for the reception of patients; the building being so constructed as to allow of the best system of ventilation in unison with regulated temperature; so important a desideratum in the treatment of pulmonary disease. The committee of management will wait only for the necessary funds to enable them to carry out this great object into full effect.

cures have been effected. Very abundant further evidence has been obtained of the remarkable curative influence of inhalation; and to this mode of treatment, it is only justice to say that Mr. Carter, the acting surgeon of the institution, has paid the utmost attention, and with very great success.

It is always pleasing and satisfactory to me to quote the experience and the testimony of others, in regard to inhalation; not only as rendering a flattering support to my own views and opinions; but as affording an additional basis for the judgment of the profession at large. Up to a certain point scepticism is justifiable, and serves an useful purpose; but beyond that it sinks into unworthy and injurious prejudice.

The great experience of Sir Charles Scudamore requires us to pay more than a mere passing respect to his assertions. It is true that the benefits of this mode of treatment are limited, but still they are real, and therefore we are from time to time agreeably surprised at the unexpected results.

Hypertrophy of the Abdominal Parietes.—Margaret Adam, æt. 33, of a lax and rather thin habit of body, was admitted on the 6th of December, 1839, labouring under the following symptoms:—Belly is swollen, somewhat tense, tympanitic at its upper, and indistinctly fluctuating at its lower region. Complains of some weakness in back, but not of pain; pulse 86; tongue white; appetite very good; bowels slow; skin cool. Swelling commenced four months ago, shortly after childbirth, and was since continued; uterus normal. She was at this time treated with purgatives, diuretics, and mercury to salivation, and left the house with the swelling greatly diminished on the 1st of July, 1840. She returned on the 17th February, with similar symptoms. Belly much swollen, soft, and tympanitic, but no fluctuation can be felt: complains of occasional dyspnoea; appetite and general health good: bowels slow; swelling began about fourteen days ago; urine rather scanty, and deposits some flocculi on being heated.

REMARKS.—This case is worthy of some observation, in as far as the diagnosis of abdominal diseases is concerned, for there was an apparent obscurity about the symptoms on the first examination, although it does not appear to be a disease attended with any particular, at least immediate danger. The abdomen, when percussed, has a peculiar doughy or fatty feel; at the same time it is accompanied with a low or concealed tympanitic sound. It may be characterized as a tympanitic sound passing through a denser medium than the abdominal parietes of normal thickness; such as occurs in very fat individuals. This patient, however, is of rather a thin habit of body, so that a na-

tural accumulation of fat in that situation cannot enter into the calculation; and she has no anasarca or fluctuation in the abdomen, while the integuments covering this latter cavity do not pit, in the slightest degree, by pressure; dropsical effusion must, therefore, also be excluded. On examining the abdomen with the stethoscope, the intestinal murmur was heard pretty distinctly, but deep-seated, or not in such close proximity to the ear as in a normal state of the abdomen, and, on pinching up a fold of the integuments from the abdominal muscles, it was found to be thickened to the extent of about two inches and a half; whereas, in most persons who are more than usually fat, the integument pinched up in this manner will not measure more than half an inch, and frequently less. What, then, is the disease of this patient since it is not ascites, anasarca, or a natural accumulation of fatty matter? It seems to depend upon two things, viz., first, the tympanitic swelling of the intestines, which does not exist to any great extent; and, second, the thickening of the integuments and cellular texture covering the abdominal muscles. Since her last admission she has been treated, in some respects, as formerly, with purgatives of the P. Jalap C. every second night, diuretic powders, and a blister to the abdomen, the latter being employed for the purpose of exciting absorption. She was dismissed on the 10th of April, with the abdomen very much reduced in size, the tympanitic swelling being altogether gone; but the integuments were still much thicker than natural.—*From a Clinical Lecture by Dr. Davidson, of Glasgow.*

On the Structure and uses of the Lingualis Muscle, and its relations to those of the Panniculus Carnosus. By JAMES MERCER, M. D. F. R. C. S. E. Lecturer on Anatomy and Physiology, Edinburgh.—In man, and some others in the higher classes of animals, the tongue seems to serve in the function of taste alone; and on investigating the structure and conditions of its upper surface in these animals, this function can alone be assigned to it.

In taking a review, however, of its uses, in the various classes of the vertebræ, we cannot be justified in considering it as only an organ of taste in all of these. Even in some of the highest classes—the ruminantia and the felinæ—it principally serves for the prehension and taking in of their food; and it is at least very doubtful whether it possesses the sense of taste in several others: although, on the contrary, we would not be warranted in denying the existence of this sense in these animals, nor even in such as are entirely destitute of the organ, as the function can be performed by other parts; it not being the effect of a special and limited organ, but a property of the mucous membrane lining the whole of the cavity of the fauces.

It has been long known, that in most of the herbivorous mammalia, particularly the rumi-

nantia, independent of the epithelium, the dermo-mucous membrane covering the upper surface of the tongue is of very firm and dense texture, and that it forms, as it were, appendages to itself—what the hairs, bristles, and quills, are to the surface of the body; numerous strong pointed papillæ, imbricated on each other, in a direction from the tip to the base of the organ.

In many of the felinæ, the marsupiatæ, and the bat tribe, the same peculiarity of structure takes place.

In several of the mammalia, the organ is not only used in the turning of the food from side to side, and for aiding in the primary part of the act of deglutition, but it also very materially, nay, in some very essentially, aids in the collecting of the food; whilst it at the same time serves the purpose of a comb or rasp for the animal cleaning itself. The ox, for instance, with his free tongue, rolls the herbage of the meadow into a kind of tuft, before he tears it through with the lower incisors and palate; and he also rasps and cleanse his own coat or that of his companion with its rough and prickly surface. In the dog and cat it is the sole agent, by means of which the fluids are conveyed to the mouth, by that action of the tongue called “lapping,” and, in short, in every animal using the organ in a similar manner we have the papillæ on its upper surface correspondingly arranged and developed.

In all these animals also the muscular lamellæ of the lingualis are well developed, and very strong, immediately beneath the dense investing membrane of the tongue; and taking this fact, with the condition of the papillæ on its upper surface, with their evident mode of production and uses, it is curious that no other function should have been assigned to these muscles but that of “shortening the tongue and depressing its point,”—actions which we shall endeavour to show are only secondary, and the effect of another.

In the following remarks, therefore, we shall endeavour to point out more specifically what the real uses of these muscles may be; not only as these can be deduced from their anatomical arrangement and distribution, but also from analogical reasoning, in regard to their situation immediately beneath the epithelium and dermo-mucous covering of the tongue; serving to these structures, and their appendages, as we conceive, what the panniculus carnosus does to that of the cutaneous textures on the greater part of the surface of the body, viz.: the erection or setting on end of these appendages, the papillæ.

The upper surface of the tongue in ruminating animals, and in the dog tribe, is covered over by a very dense and almost cartilaginous membrane, extending from the epiglottis forwards to the tip, and over its sides, where it becomes much changed in its appearance and

structure, and takes on the nature of true mucous membrane.

Along the median line it is much thicker, and more dense, than at any other part, and appears in the dog, in the form of a distinct and rounded cord, commonly called the "worm of the tongue." This, by Caldani, was called the "*linea albescens*."*

Posteriorly this membrane is intimately attached to that which extends between the base of the tongue generally, the epiglottis and the os hyoides, and, in structure, appears evidently to be similar to the yellow elastic tissue.

On making an oblique section of the entire thickness of this membrane, it appears to differ somewhat in its two anterior thirds from that which is seen in the posterior; and hence it has been looked on by Gerdy, as warranting two distinct terms—the "*membrane folliculaire ou muqueuse linguale*," and the "*tissu folliculaire linguale*."

The first of these, says he, "S'observe dans les deux tiers antérieurs de la membrane linguale, est grise, très-dense, fort résistante, cartilaginiforme, et comme si elle était tapissée par un lame cartilagineuse."

The second, the "*tissu lingual folliculaire*," est placé sous la muqueuse, très-mince de la partie supérieure de la base de la langue. Il occupe le tiers postérieur de la surface supérieure de celle-ci, environ tout l'espace qui est au-delà des papilles lenticulaires et coniques jusqu'à l'épiglotte, et on s'ouvrent les follicules si sensibles. Il adhère aussi très-fortement à la folliculeuse qui le recouvre immédiatement."†

This difference, however, appears to me to be more apparent than real; for, after the most careful examination of their minute structure in the ox and dog, no appreciable difference could be detected, and the only cognizable differences, the thickness and density, appearing rather to be dependent on the comparative absence of the papillæ on its upper surface.

On the two anterior thirds, where these projections most abound, there the tissue is most dense and strong, and its sensibility less than in the posterior third, which is well known to be, next to the margins of the tongue, in the animals above specified, the situation where the sense of taste is most acute over the surface of the organ. This opinion is still more strengthened by a comparative examination of this investing membrane, with that which is found along and under the margins of the tongue. There the structure seems to be in every respect similar to the "*tissu folliculaire*."‡

* *Icones Anatomicæ*, Venet. 1804.

† Gerdy, *Anat. et Physiolog. de Langue*: *Archives Gen. de Médecine*, tom. vii. p. 363.

‡ See also Blandin, *Archives Gen. de Méd.*, 1823; also his *Thèse Inaugurale sur la structure de la langue du bœuf*.

Projecting from the upper surface of the whole of this investing membrane, we have a great number of papillæ, varying much in size, form, and arrangement. They are largest and most prominent in the middle and anterior thirds, particularly along the centre of each section, but more scattered along the margins. In their directions, when viewed laterally, and the tongue of the animal is kept in the bottom of the mouth, they appear to lie flat along the surface, but imbricated on each other from before backwards; their apices looking towards the epiglottis.

No sooner, however, is any sapid body, or any other stimulus, applied to the surface, than they are immediately elevated. When thus seen in the tongue of the dog or cat, they appear arranged in comparatively regular and transverse lines, the apices then being lifted up, and their posterior surfaces rendered concave, so that we have now a series of small channels, well adapted for containing and supporting fluids, placed in them, and thereby transporting them into the back of the mouth, during the pendent position in which the head of the animal is then placed.

In their structure, they are nearly similar to that of the investing membrane, and their adherent surfaces are intimately attached to the anterior extremities of the fibres of the superficial lingual muscles.

Immediately beneath this investing membrane, we find the irregular bands of muscular fibres, to which the term *lingualis* has been applied. These bands have been arranged by Gerdy into four sets—the superficial and deep, the vertical and transverse lingual muscles;* but it is only the first of these which is the most conspicuous, and can alone act on the surface of the tongue and its papillæ. This muscle consists of two distinct lamellæ of fibres, extending from the base to the tip of the organ, and separated from each other by the *linea albescens*. In their general outline and configuration, they are slightly parabolic; their concavities looking towards each other along the median raphè, and their convexities to the margins of the tongue.

Posteriorly they arise by means of the glosso-epiglottic elastic tissue from the upper surface of the os hyoides, and from thence proceed forwards to different portions of the adherent surface of the investing membrane. The inner set of fibres are considerably the shortest; but they gradually become more lengthened as they are examined near the margins.

Their free or inserted extremities are undoubtedly into the whole of the lower surface of the investing membrane. This can be proved by two facts—first, by the roughened appearance of the dissection, after its most careful removal; this condition evidently depending on

* *Recherches d'Anatomie*, etc. Paris, 1823, page 20.

the severing of muscular fibres from it in their transverse direction; and secondly, from our inability to trace, even with a glass, any of the muscular fibres forming it, curving downwards to the base of the organ,—the general tendency of all the muscles of the tongue, the intrinsic and extrinsic, being towards its upper surface and tip. Immediately beneath these layers of muscular fibres, we find another layer of comparatively loose cellular tissue, surrounding the free extremities of the different muscles of the body of the tongue. This layer is very vascular, being freely supplied from the terminal branches of the lingual arteries. The chief use of this layer, as we conceive, being to enable the superficial lingual muscles to be freely and easily moved from before backwards over the surface of the tongue, unconnected and unrestrained by the influence of the other muscles, from which they are thereby completely separated. Analogously considered, it is similar in situation and use to the adipose layer on the surface of the body, which separates the panniculus carnosus from those muscles which are in immediate connection with the trunk, and thereby confines its action to the common investing membrane and its appendages.

Having thus traced the fibres of the muscles, and seen that they are extended along the whole of the upper surface of the organ, and fixed posteriorly to the os hyoides, it will be easy to conceive that this latter must be the part whence it can become fixed before it can be called into action. Taking this, therefore, as its point of fixation whenever it contracts, either by the will of the animal, or by the presence of some stimulus, it becomes shortened in its length, and puckered, as it were, into transverse folds; and, it will also be observed, that, in consequence of the intimate attachment of the anterior fibres to the adherent surface of the investing membrane, this must also be shortened and wrinkled in a corresponding ratio.

No sooner, therefore, will this be effected, than its immediate free prolongations, the papillæ, will have their bases drawn backwards along with it, and with the natural consequence of lifting up and tilting forwards their apices; so that when the entire muscles are in a complete state of contraction, and the investing membrane shortened to its greatest possible condition, the whole of the papillæ on the dorsum of the tongue are raised up, and arranged, as already stated, in nearly regular undulating lines; serving thereby as so many tenter-hooks, for assisting in laying hold of the grass, in the herbivora; and forming so many hollow channels, or buckets, for lifting up, and containing safely—like the boxes of a circular chain-pump or dredging machine—the fluids, in such of the felinæ as take in this part of their food by the process of lapping.

The generally received opinion of the action of these muscles, viz., “of bending up the tip

of the tongue,” can only, therefore, be a secondary effect, following the perfect evolution of the papillæ; but we doubt much if the muscles ever act in that manner, there being a sufficient number of more powerful muscles to perform it.

London Medical Gazette.

HEALTH OF THE CITY

INTERMENTS in the City and Liberties of Philadelphia, from the 10th of July, to the 17th.

Diseases.	Adults.	Children.	Diseases.	Adults.	Children.
Anemia,	1	0	Brought forward,	33	50
Cancer of the			Intemperance,	1	0
Stomach,	1	0	Intestinal Irrita-		
Casualty,	0	1	tion,		0 1
Croup,	0	2	Jaundice,		0 1
Congestion of			Marasmus,		0 4
Lungs,	0	1	Measles,		0 2
— Brain,	1	0	Neglect,		0 1
Consumption of			Old age,		2 0
the lungs,	10	2	Pleurisy,		2 0
Convulsions,	1	9	Scrofula,		0 1
Cancerum Oris,	0	1	Small pox,		1 1
Diarrhœa,	1	4	Still-born,		0 3
Dropsy,	2	1	Suicide,		2 0
— Head,	0	2	Summer Com-		
— Heart,	1	0	plaint,		0 34
Diseas of Lungs,	1	0	Unknown,		1 1
— Bowels,	1	1			—
Drowned,	1	0	Total,	141	42 99
Dysentery,	1	7			
Debility,	0	2			
Drinking cold					
water,	1	0	Of the above, there		
Epilepsy,	1	0	were under 1 year,		52
Fever,	0	1	From 1 to 2		22
— Bilious,	1	0	2 to 5		16
— Typhus,	1	0	5 to 10		5
Hernia,	1	0	10 to 15		2
Inflammation of			15 to 20		2
the Brain,	1	5	20 to 30		13
— Bronchi,	1	2	30 to 40		6
— Lungs,	2	1	40 to 50		5
— Stomach,	0	1	50 to 60		7
— Stomach and			60 to 70		4
Bowels,	0	1	70 to 80		5
— Bowels,	1	4	80 to 90		2
— Liver,	1	0	90 to 100		0
— Larynx,	0	1			
— Peritoneum,	0	1	Total,		148
			Carried forward,	33	50

Of the above there were 6 from the almshouse, 22 people of colour, and 1 from the country, which are included in the total amount.